UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

TOUCHTUNES MUSIC CORP.,

Plaintiff,

V.

ROWE INTERNATIONAL CORP., ARACHNID, INC., AMI ENTERTAINMENT, INC. and MERIT INDUSTRIES, INC. d/b/a/ MERIT ENTERTAINMENT,

Defendants.

AND RELATED COUNTERCLAIMS

Civil Action No. 07-cv-11450-RWS

DECLARATION OF PHIL RAMONE

- I, Phil Ramone, hereby declare and state as follows:
- I am, among other things, a recording engineer and record producer. I have been in the sound engineering business for over fifty years. Over the course of my career, I have been heavily involved in studio recording and sound engineering, and I am very familiar with digital recording technology, the processing of digital music, and sound quality. I also have extensive firsthand knowledge of compact disc ("CD"), digital video disc, high-definition recording and surround sound technology.
- 2. I understand that TouchTunes Music Corporation is engaged in a patent infringement litigation with Arachnid, Inc. I have read and understood the declaration of Mr. Tooker of TouchTunes. I am submitting this Declaration in connection with that litigation in order to confirm based on my firsthand experience and knowledge that no reasonable person could conclude that the music used by TouchTunes' jukeboxes constitutes, or even approximates, a studio quality musical recording.

My Background and Qualifications

- 3. I have been involved in the musical arts since I began playing the violin as a child. Years later, in 1959, I established A&R Recording, an independent recording studio. Since then, I have had the pleasure of working with a diverse group of recording artists, including Aretha Franklin, Barbra Streisand, BB King, Billy Joel, Bob Dylan, Bonnie Raitt, Bono, Bruce Springsteen, Elton John, Elvis Costello, Gladys Knight, James Taylor, Keith Urban, Michael Buble, Paul McCartney, Queen Latifah, Ray Charles, Sheryl Crow and Sting. In addition, I have produced music for a variety of films. I have also supervised music for and have produced many television specials, and I have worked on- and off-Broadway as both an audio designer and producer of cast albums. I also co-authored the book *Making Records: The Scenes Behind the Music*, which was published in 2007
- 4. Over the years, I have been involved in many technological developments in the music industry, including:

- The first use of a solid-state console for recording and mastering for Solid State Records;
- The first Dolby four-track discrete sound with the 1976 motion picture A Star Is Born;
- The first use of a satellite link between a Burbank Studio and Todd-AO for *A Star is Born*;
- The first Dolby optical surround sound for the motion picture *One Trick Pony*;
- The first use of digital live recording for *Songs In The Attic*, which is regarded as having paved the way for the widespread use of the compact disc in the pop music world; and
- The first use of a fiber optics system (EDNet) to record tracks in "real time" from different locations for Frank Sinatra's *Duets I & II*.
- 5. In addition, my studio (A&R Recording) produced the first album commercially available on compact disc (Billy Joel's 52nd Street), as well as the first pop music DVD (Dave Grusin Presents West Side Story).
- 6. I also have had the honor of receiving a number of awards and acknowledgements for my work. Among those, I have received over 30 Grammy nominations and have been awarded 14 Grammys, including one for Best Engineered Recording, one for Best Surround Sound Album, and a lifetime Technical Grammy award for innovative contributions to the recording industry. These technical innovations included a variety of digital recording techniques for CDs and video discs, as well as the introduction of optical surround sound for movies. In addition, I have received an Emmy Award for sound mixing, and in 2007 I was awarded a Fellowship by the Audio Engineering Society.
- 7. I am also a founding member of The Music & Engineering Technology Alliance, which is a group of internationally recognized producers and engineers dedicated to the establishment of high-quality music recording and delivery by uniting audio professionals, consumer electronics manufacturers, music enthusiasts and technology providers.

My Opinions on Song Quality

- 8. The quality of a listening experience can be affected by a variety of things, such as the listening environment, the equipment playing the song, and even the listener's hearing ability. The quality of a musical recording, however, is objective and quantitative in nature. It does not depend upon a listener's subjective assessment of the music, but rather it depends upon the amount of data available in the song, per unit of time, to establish, for example, the dynamic range and clarity of the song.
- 9. Thus, the quality of a song can be measured or described in terms of the song's size per minute of stereo sound, which I will refer to as "size-per-minute." A song's size-per-minute is typically designated in units of megabytes ("MB") and defines how much information is available for each minute of the song. The more information that is available for each minute of the song, the higher the quality of the resulting music. A music file having a high size-per-minute of 10 MB has 10 megabytes of data for each minute of the song. In contrast, a music file having a low size-per-minute of 1 MB has only 1 megabyte of data for each minute of the song, resulting in much lower music quality music than the music file having a size-per-minute of 10 MB.
- 10. A song's size-per-minute also directly impacts the song's overall size. For example, a complete three-minute song having a size-per-minute of 10 MB would require about 30 MB of storage space. In contrast, a complete three-minute song having a size-per-minute of 1 MB would require only about 3 megabytes of storage space. Thus, the music file for a low-quality version of a particular song is smaller in size than the music file for a high-quality version of that same song.
- 11. Studio quality music has a size-per-minute of at least 10.1 MB, and can go as high as 66 MB. Similarly, from the time audio CDs became commercially available in the early 1980s through today, songs stored on CDs have had a size-per-minute of 10.1 MB.
- 12. If maintaining studio quality of a song is not a concern, techniques are available for reducing the amount of data in a music file and thereby reducing the amount of space

required to store the songs, as well as the amount of time required to transmit the songs. Compression of a music file reduces the song's size-per-minute, and thereby reduces its quality. One technique for compressing music is "MPEG-1 Audio Layer 3," which is more commonly known as "MP3." MP3 is a "lossy" compression technique and therefore results in the removal of data during compression. That loss of data during MP3 compression results in a significant reduction in music quality.

- 13. I understand that, in order to reduce file transmission times and storage consumption, all of the music transferred to and stored on all of TouchTunes' jukeboxes has been converted, using MP3, to a format known as "MP3-128." As the music is converted to the MP3-128 format, it is compressed to a size-per-minute of 0.94 MB. I also understand that the MP3-128 song is transmitted to and stored in TouchTunes' jukeboxes in an encrypted format for security purposes. It is my understanding that, throughout the encryption (and subsequent decryption) processes, the song remains an MP3-128 song.
- 14. When a studio quality musical recording is compressed to the MP3-128 format, its size-per-minute is reduced by about 90%, from 10.1 MB to 0.94 MB. Thus, an MP3-128 song has a size-per-minute that is less than one-tenth that of a studio quality musical recording. As such, an MP3-128 song is not the same as, or anywhere close to, a studio quality musical recording. About 90% of the information contained in the studio quality version of the song is removed when the song is compressed to the MP3-128 format. Thus, an MP3-128 song is not a studio quality song, let alone a complete studio quality song. In addition, the resulting MP3-128 version of the song is about 90% smaller than the studio quality version of the song.
- 15. It is my opinion that no reasonable person could conclude that the music downloaded to, stored in or played by TouchTunes' jukeboxes constitutes a studio quality musical recording, or even an equivalent to a studio quality musical recording. Rather, in order to reduce storage consumption and to shorten transmission times, TouchTunes has accepted a level of music quality in its products that is far less than studio quality.

16. In accordance with 28 U.S.C. § 1746, I hereby verify, under penalty of perjury under the laws of the United States of America, that the foregoing statements are true and correct.

Dated: March 15 2010

By:

Phil Ramone